

1187/09 PREVIOUS RULE AND AMENDMENTS

#	TYPE	TITLE	LL87/09 / RULE OF YEAR 2012	NEW AND/OR UPDATED	LL87/09 RULE AMENDMENTS OF YEAR 2019
1	Technical	Definitions Section	<p>LL87/09 §28-308.5 Content of energy efficiency report. Except as otherwise provided in section 28-308.7, the energy efficiency report shall include, in a format prescribed by the department, (i) the energy audit report or documentation substantiating that an exception as set forth in section 28-308.2 applies to such building, and (ii) the retro-commissioning report or documentation substantiating that an exception as set forth in section 28-308.3 applies to such building.</p> <p>ENERGY EFFICIENCY REPORT: The report required to be filed pursuant to section 28-308.4.</p>	<p>New + Updated This addition re-defines and clarifies the scope of work for LL87/09. Added a definitions section (a).</p>	<p>Section 1. Subdivision (a) of section 103-07 of Subchapter C of Chapter 100 of Title 1 of the Rules of the City of New York is REPEALED and a new subdivision (a) is added to read as follows: (a) Definitions. As used in this section, the following terms have the following meanings: ACCEPTABLE ENERGY EFFICIENCY REPORT (EER): An acceptable EER is a technical energy audit and retro-commissioning report filed by an energy auditor and retro-commissioning agent that meets the requirements of the Administrative Code and this section, as determined by the department.</p>
2	Technical	Definitions Section	None	<p>New This addition re-defines and clarifies the scope of work for LL87/09 and sampling requirements. Added a definitions section (a).</p>	<p>COMMON AREA: Common area is an area that is not considered a tenant area. Common area typically includes but is not limited to non-occupiable spaces such as egress corridors, egress stairwells, elevators, lobbies, public restrooms, janitorial closets, shared amenities, storage, mechanical or electrical rooms containing equipment that is owned, maintained and operated by the building owner.</p> <p>NON-COMMON OWNER AREA. A non-common owner area is an occupiable space, as defined in section 202 of the Building Code, that: (1) is not a non-common tenant area; and (2) is maintained by and accessible to the building owner.</p> <p>NON-COMMON TENANT AREA. A non-common tenant area is an area of a dwelling unit or other space leased or intended to be leased.</p>
3	Technical	Definitions Section	<p>LL87/09 SYSTEM OR SUBSYSTEM. Shall have the same definition as set forth in section 202 of the New York city energy conservation code.</p>	<p>New This addition re-defines and clarifies the scope of work for LL87/09. Added a definitions section (a).</p>	<p>MAJOR EQUIPMENT, SUB-EQUIPMENT AND COMPONENTS: Major equipment is a base building system listed in Table 1. Sub-equipment and components of the associated major equipment are listed in Table 2</p>
4	Technical	Major Equipment	None	<p>New This addition re-defines and clarifies the scope of work for LL87/09. Defined the scope of work by two building classifications: Group R and All occupancies other than Group R. Scope of work for Group R occupancies is different from non-Group R only for the following in rule 2020</p>	<p>Major equipment is a base building system listed in the Table 1: Group R occupancies: Boilers: All boilers with rated input capacity greater than or equal to 300,000 Btu/h Chillers: All chillers Cooling towers and dry Coolers: All cooling towers and dry coolers Air handling units (AHU), fan coil units (FCU), heat recovery units (HRU), heating and ventilation units (H&V), packaged and split air conditioning units: Capacity greater than or equal to 2,500 CFMs HVAC Motors, fans and pumps: Greater than or equal to 2.5 HP Heat exchangers: Serving 10,000 square feet or more Domestic hot water heaters (Storage and Instantaneous): All water heaters with rated input capacity greater than 155,000 Btu/h Domestic water pumps: Greater than or equal to 10 HP</p>
					<p>All occupancies other than Group R: Boilers: All boilers with rated input capacity greater than or equal to 300,000 Btu/h Chillers: All chillers Cooling towers and dry coolers: All cooling towers and dry coolers Air handling units (AHU), fan coil units (FCU), heat recovery units (HRU), heating and ventilation units (H&V), packaged and split air conditioning units: Capacity greater than or equal to 5000 CFMs HVAC Motors, fans and pumps: Greater than or equal to 5 HP Heat exchangers: Serving 10,000 square feet or more Domestic hot water heaters (Storage and Instantaneous): All water heaters with rated input capacity greater than 155,000 Btu/h Domestic Water pumps: Greater than or equal to 10 HP</p>
5	Technical	Sub-Equipment and Components	None	<p>New This addition re-defines and clarifies the scope of work for LL87/09. Defined the scope of work as shown here.</p>	<p>Sub-equipment and components of the major equipment-Table 2: Existing cabinets/casing Terminal and induction units Access doors Control panels Controls and sensors Interlocks Electrical/mechanical switches Operating and modulating pressure controls Valves Actuators Dampers Chilled or hot water coils Steam or DX coils Belts VAV and fan powered boxes Steam traps Grilles Filters Air outlets Fans and motors VFDs Ductwork Piping</p>

6	Technical	References	<p>LL87/09 ENERGY AUDIT OR AUDIT. A systematic process of identifying and developing modifications and improvements of the base building systems, including but not limited to alterations of such systems and the installation of new equipment, insulation or other generally recognized energy efficiency technologies to optimize energy performance of the building and achieve energy savings, provided that such process shall not be less stringent than the Level II Energy Survey and Engineering Analysis of the 2004 edition of Procedures for Commercial Building Energy Audits published by the American Society of Heating, Refrigerating and Air-conditioning Engineers Inc. (ASHRAE).</p> <p>Existing rule of year 2012 (b) References. Article 308of Chapter 3 of Title 28 of the New York City Administrative Code("Article 308"); American Society of Heating, Refrigerating and Air-conditioning Engineers Inc. ("ASHRAE") Procedures for Commercial Building Energy Audits, 2011 edition.</p>	<p>New + Updated</p> <p>This addition re- clarifies the scope of work for LL87/09 and modifies existing rule of year 2012 Replaced ASHRAE Procedures for Commercial Building Energy Audits, 2011 edition by Standard for Commercial Building Energy Audits – ASHRAE 211-2018 (ANSI Approved) Introduced NEBB Standard S120-2016 – Technical Retro-Commissioning of Existing Buildings (ANSI Approved)</p>	<p>Energy Audit: Article 308 of Chapter 3 of Title 28 of the Administrative Code (Article 308); American Society of Heating, Refrigerating and Air-conditioning Engineers Inc. ("ASHRAE") Standard for Commercial Building Energy Audits – ASHRAE 211-2018 (American National Standards Institute (ANSI) approved/Air Conditioning Contractors of America (ACCA) co-sponsored).</p> <p>Retro-commissioning: Article 308; National Environmental Balancing Bureau (NEBB) Standard S120-2016 – Technical Retro-Commissioning of Existing Buildings (ANSI approved).</p>
7	Administrative	Energy Auditor Qualifications	<p>LL87/09 ENERGY AUDITOR. An approved agency authorized by the department to perform energy audits and to certify audit reports required by this article. Until such time as there is a national standard establishing qualifications for persons performing energy audits and such standard has been adopted by the department, an energy auditor shall be a registered design professional with such other certification or qualification as the department deems to be appropriate. After the establishment of such a national standard, the department may adopt the qualifications of the national standard with such modifications as the department deems to be appropriate.</p> <p>Existing rule of year 2012 (1) Energy auditor qualifications. The energy auditor performing or supervising the audit may not be on the staff of the building being audited and must meet the qualifications of either subparagraph (i) or (ii). (i) The energy auditor must be a registered design professional, and the energy auditor or an individual under the direct supervision of the energy auditor must be one of the following: (A) a New York State Energy Research and Development Authority- (NYSERDA) approved Flex Tech consultant;</p>	<p>Updated</p> <p>This addition re- clarifies the scope of work for LL87/09 and modifies existing rule of year 2012 Register Design Professional is required to submit. Removed NYSERDA flex tech. Removed registration section for approved agency.</p>	<p>Energy auditor and retro-commissioning agent qualifications. (1) The energy auditor performing or supervising the audit may not be on the staff of the building being audited. The energy auditor must be a registered design professional, and the energy auditor or an individual under the direct supervision of the energy auditor must be one of the following: (i) a Certified Energy Manager or Certified Energy Auditor, certified by the Association of Energy Engineers (AEE); (ii) a High-Performance Building Design Professional certified by ASHRAE. (iii) a Building Energy Assessment Professional certified by ASHRAE; or (iv) for audits of multifamily residential buildings only, a Multifamily Building Analyst, certified by the Building Performance Institute.</p>
			<p>(B) a Certified Energy Manager (CEM) or Certified Energy Auditor (CEA), certified by the Association of Energy Engineers (AEE); (C) a High-Performance Building Design Professional (HPBD) certified by ASHRAE; (D) a Building Energy Assessment Professional (BEAP) certified by ASHRAE; or (E) for audits of multifamily residential buildings only, a Multifamily Building Analyst (MFBA), certified by the Building Performance Institute (BPI).</p> <p>(ii) The energy auditor must be an individual registered with the department and must be one of the following: (A) a Certified Energy Manager (CEM) or Certified Energy Auditor (CEA), certified by the Association of Energy Engineers (AEE); (B) a High-Performance Building Design Professional (HPBD) certified by ASHRAE; (C) a Building Energy Assessment Professional (BEAP) certified by ASHRAE; or (D) for audits of multifamily residential buildings only, a Multifamily Building Analyst (MFBA), certified by the Building Performance Institute (BPI).</p>		
8	Administrative	Retro-Commissioning Agent Qualifications	<p>LL87/09 RETRO-COMMISSIONING AGENT. An individual, who shall not be a certified refrigerating system operating engineer or a licensed high pressure boiler operating engineer on the staff of the building being retro-commissioned, authorized by the department to certify retro-commissioning reports required by this article. Until such time as there is a national standard establishing qualifications for persons who perform retro-commissioning and such standard has been adopted by the department, a retro-commissioning agent shall be a registered design professional, a certified refrigerating system operating engineer, or a licensed high pressure boiler operating engineer, with such other qualification or certification as determined by the department. After the establishment of such a national standard, the department may adopt the qualifications of the national standard with such modifications as the department deems to be appropriate.</p> <p>Existing rule of year 2012 (2) Retro-commissioning agent qualifications. The retro-commissioning agent performing or supervising the retro-commissioning may not be on the staff of the building being retro-commissioned and must meet the qualifications of either subparagraph (i) or (ii). (i) The retro-commissioning agent must be a registered</p>	<p>Updated</p> <p>This addition re- clarifies the scope of work for LL87/09 and modifies existing rule of year 2012 Register Design Professional, a certified Refrigerating System Operating Engineer OR a Licensed High Pressure Boiler Operating Engineer is required to submit. Added a Commissioning Process Professional certified by NEBB. Added a Building Systems Commissioning Professional certified by NEBB. Removed registration section for approved agency.</p>	<p>Energy auditor and retro-commissioning agent qualifications. (2) The retro-commissioning agent performing or supervising the retro-commissioning may not be on the staff of the building being retro-commissioned. The retro-commissioning agent must be a registered design professional, a certified Refrigerating System Operating Engineer, or a licensed High Pressure Boiler Operating Engineer. In addition, the retro-commissioning agent or an individual under the direct supervision of the retro-commissioning agent must be one of the following: (i) a Certified Commissioning Professional certified by the Building Commissioning Association; (ii) a Certified Building Commissioning Professional certified by the AEE; (iii) an Existing Building Commissioning Professional as certified by the AEE; (iv) a Commissioning Process Management Professional certified by ASHRAE; (v) an Accredited Commissioning Process Authority Professional approved by the University of Wisconsin; (vi) a Certified Commissioning Authority certified by the Associated Air Balance Council Commissioning Group; (vii) a Building Commissioning Professional certified by ASHRAE; (viii) a Commissioning Process Professional certified by NEBB; or (ix) a Technical Retro-Commissioning Certified Professional certified by NEBB; or (x) a Building Systems Commissioning Professional certified by NEBB.</p>

			<p>design professional, a certified Refrigerating System Operating Engineer, or a licensed High Pressure Boiler Operating Engineer. In addition, the retro-commissioning agent or an individual under the direct supervision of the retro-commissioning agent must be one of the following:</p> <p>(A) a Certified Commissioning Professional (CCP) certified by the Building Commissioning Association (BCA);</p> <p>(B) a Certified Building Commissioning Professional (CBCP) certified by the AEE;</p> <p>(C) an Existing Building Commissioning Professional (EBCP) as certified by the AEE;</p> <p>(D) a Commissioning Process Management Professional (CPMP) certified by ASHRAE; or</p> <p>(E) an Accredited Commissioning Process Authority Professional (ACPAP) approved by the University of Wisconsin.</p> <p>(ii) The retro-commissioning agent performing or supervising the retro-commissioning must be an individual registered with the department and must be one of the following:</p> <p>(A) a Certified Commissioning Professional (CCP) certified by the Building Commissioning Association (BCA);</p> <p>(B) a Certified Building Commissioning Professional (CBCP) certified by the AEE;</p> <p>(C) an Existing Building Commissioning Professional (EBCP) as certified by the AEE; or</p> <p>(D) a Commissioning Process Management Professional (CPMP) certified by ASHRAE.</p>		
			<p>(E) an Accredited Commissioning Process Authority Professional (ACPAP) approved by the University of Wisconsin.</p> <p>(ii) The retro-commissioning agent performing or supervising the retro-commissioning must be an individual registered with the department and must be one of the following:</p> <p>(A) a Certified Commissioning Professional (CCP) certified by the Building Commissioning Association (BCA);</p> <p>(B) a Certified Building Commissioning Professional (CBCP) certified by the AEE;</p> <p>(C) an Existing Building Commissioning Professional (EBCP) as certified by the AEE; or</p> <p>(D) a Commissioning Process Management Professional (CPMP) certified by ASHRAE.</p> <p>(3) Registration.</p> <p>(i) General. An energy auditor or a retro-commissioning agent who is not a registered design professional must register with the department in accordance with the provisions of this paragraph. No such energy auditor or retro-commissioning agent may perform audits or retro-commissioning without a current registration.</p> <p>(ii) Form and manner of registration. An application for registration must be submitted in a form and manner determined by the commissioner, including electronically, and the applicant must provide such information as the commissioner may require.</p>		<p>(3) Registrations. An energy auditor or a retro-commissioning agent who is currently registered with the department and is not a registered design professional may continue to submit the EER as an approved agent until the expiration of the registration or December 31, 2021, whichever occurs first. No registration shall be renewed once expired. The provisions of sections 28-401.6, 28-401.8 and 28-401.19 of the Administrative Code apply to such registered energy auditors and retro-commissioning agents.</p>
			<p>(iii) Certifications. All energy auditors or retro-commissioning agents who register with the department must obtain and maintain a current certification from one of the entities listed in subparagraph (ii) of paragraph (1) or subparagraph (ii) of paragraph (2) of this subdivision, as applicable. The certification must be presented to the department upon request.</p> <p>(iv) Registration term. The term of an initial registration is three (3) years, beginning on the applicant's birthday following the date of registration, and may be renewed for additional three- (3) year periods after such initial registration.</p> <p>(v) Registration and renewal fees. Fees will be those set forth in section 101-03 of these rules.</p> <p>(vi) Renewals. A renewal application must be submitted between sixty (60) and ninety (90) days prior to the expiration date of the registration and must be accompanied by proof that the auditor or agent has, during the one (1) year period immediately preceding renewal, maintained a current certification as set forth in this rule.</p> <p>(vii) Other applicable provisions. The provisions of sections 28-401.6, 28-401.8 and 28-401.19 of the Administrative Code shall apply to energy auditors and retro-commissioning agents registered pursuant to this paragraph.</p>		
9	Technical	Energy Audit Procedures	<p>Rule amendments 2012</p> <p>(d) Energy Audit Procedures.</p> <p>An energy audit must be performed on the base building systems of a covered building prior to filing an energy efficiency report. The scope of such energy audit must be at a minimum equivalent to the procedures described for a Level 2 Energy Survey and Analysis in accordance with Procedures for Commercial Building Energy Audits, 2011 edition, published by the American Society of Heating, Refrigerating and Air-conditioning Engineers, Inc. (ASHRAE). The building's operations and maintenance staff must be consulted at the start of and during the energy audit process in order to establish the current facility requirements.</p>	<p>Updated</p> <p>Removed the consultation of the building's operation and maintenance staff.</p> <p>Removed ASHRAE of "Procedures for Commercial Building Energy Audits, 2011 edition" as a reference.</p> <p>Added Standard for Commercial Building Energy Audits – ASHRAE 211-2018 (ANSI Approved)</p>	<p>Energy audit procedures.</p> <p>An energy audit must be performed on the base building systems of a covered building prior to filing an EER. The scope of such energy audit must be at a minimum equivalent to the procedures, requirements, and reporting described for a Level 2 energy audit in accordance with ANSI/ASHRAE/ACCA Standard 211-2018 – Standard for Commercial Building Energy Audits, published by ASHRAE.</p>

10	Technical	Contents of the energy audit report.	<p>LL87/09 §28-308.2.1 Contents of audit report The energy auditor shall prepare and certify a report of the energy audit. Except as otherwise provided in section 28-308.7, the audit report shall include such information relating to the audit as shall be specified in the rules of the department, including but not limited to (i) the date that the audit was completed, and (ii) the information specified in section 28-308.2.</p> <p>Existing rule of year 2012 (e) Contents of Energy Audit Report. An audit report must be prepared for the owner that is at a minimum equivalent to the report prescribed by ASHRAE Procedures for Commercial Building Energy Audits, 2011 edition, and must include the information required by §28-308.2 of the Administrative Code. Such report must be retained by the owner in accordance with subdivision (j) of this section. The energy auditor must certify that the audit satisfies the requirements of §28-308.2 of the Administrative Code and this rule.</p>	<p>Updated</p> <p>This addition re-clarifies the scope of work for LL87/09 and modifies existing rule of year 2012 The contents of the audit report must include all contents as in the Level 2 energy audit report outline in Informative Annex D of standard 211-2018, or subsequent edition.</p>	<p>Contents of the energy audit report. An audit report must be prepared for the owner that is at a minimum equivalent to the report prescribed by ANSI/ASHRAE/ACCA Standard 211-2018, or any subsequent, edition – Standard for Commercial Building Energy Audits, published by ASHRAE, and must include the information required by § 28-308.2 of the Administrative Code. The table of contents of the audit report must include all of the sections provided in the Level 2 energy audit report outline in Informative Annex D of standard 211-2018, or subsequent edition. Such report must be retained by the owner in accordance with subdivision (j) of this section. The energy auditor must certify that the audit satisfies the requirements of § 28-308.2 of the Administrative Code and this section. The energy audit report and certification form must be uploaded through the web-based Energy Audit template tool.</p>
11	Technical	Retro-commissioning procedures	<p>Existing rule of year 2012 (f) Retro-commissioning procedures. The base building system components subject to retro-commissioning as per §28-308.3 of the Administrative Code must be assessed in accordance with §28-308.3 of the Administrative Code, including the testing protocols, master list of findings and repairs and deficiencies corrected, and this section. Deficiencies found in the assessment must be corrected as required by this subdivision. Notwithstanding the particular provisions of this subdivision, where less than ninety percent of components tested in the initial sample set is found to be satisfactory, corrections may be made to all similar system components without further testing. The building's operations and maintenance staff must be consulted at the start of and during the retro-commissioning process in order to establish the current facility requirements.</p>	<p>Updated</p> <p>Removed the consultation of the building's operation and maintenance staff. Added Standard for NEBB Standard S120-2016, or any subsequent, edition – Technical Retro-Commissioning of Existing Buildings. Modified the acceptance of "less than ninety percent of components tested in the initial sample set is found to be satisfactory".</p>	<p>Retro-commissioning procedures. The base building system components subject to retro-commissioning as per § 28-308.3 of the Administrative Code must be assessed in accordance with NEBB Standard S120-2016, or any subsequent, edition – Technical Retro-Commissioning of Existing Buildings and § 28-308.3 of the Administrative Code, including the technical retro-commissioning process, the testing protocols, master list of findings and repairs and deficiencies corrected, deliverables and documentation. Deficiencies found in the assessment must be corrected, prior to submission of the EER, as required by this subdivision.</p>
12	Technical	Contents of retro-commissioning report	<p>LL87/09 §28-308.3.1 Contents of retro-commissioning report. The retro-commissioning agent shall prepare and certify a retro-commissioning report. The retro-commissioning report shall include such information relating to the retro-commissioning as shall be set forth in the rules of the department including, at a minimum:</p> <p>1. Project and team information: 1.1 Building address. 1.2 Experience and certification of person performing retro-commissioning and any staff involved in the project. 1.3 Name, affiliation, and contact information for persons performing retro-commissioning and members of the retro-commissioning team, owner of building, and facility manager of building.</p> <p>2. Building information: 2.1. List of all HVAC, domestic hot water, electrical equipment, lighting, and conveyance equipment types in the base building systems. 2.2. Benchmarking output. 3. Testing protocol: 3.1. List of all equipment types tested. 3.2. For each equipment type tested, a list of the sample rates (percent of each type of equipment tested), the testing methodology, including any diagnostic equipment used, and the test results.</p>	<p>New</p> <p>This addition re-clarifies the scope of work for LL87/09 and modifies existing rule of year 2012 In establishing the table of contents, the retro-commissioning agent shall refer to "K. Informative Appendix – Retro-Commissioning Report" of the NEBB Standard S120-2016, or any subsequent edition – Technical Retro-Commissioning of Existing Buildings as guidelines until a final retro-commissioning report outline is prescribed by the department.</p>	<p>(g) Contents of retro-commissioning report. In accordance with § 28-308.3.1 of the Administrative Code, the retro-commissioning agent must prepare and certify a retro-commissioning report that satisfies the requirements of § 28-308.3 of the Administrative Code and this rule. In establishing the table of contents, the retro-commissioning agent shall refer to "K. Informative Appendix – Retro-Commissioning Report" of the NEBB Standard S120-2016, Rev.1-2017 or any subsequent, edition – Technical Retro-Commissioning of Existing Buildings as guidelines until a final retro-commissioning report outline is prescribed by the department. Such report must include the model number, serial number, last calibration date and manufacturer recommended calibration frequency for each reference instrument used for functional performance testing. The report must also include photos of deficiencies and repairs. All photos must include a timestamp visible on the front of the photo within the report. Calibration certificates and additional photos must be provided, if requested by the department. The retro-commissioning report must be uploaded through the web-based Energy Audit template tool when submitting to the department. Such report must be retained by the owner in accordance with subdivision (j) of this section.</p>
			<p>3.3. List of integrated system testing performed.</p> <p>4. Master list of findings, including for each, the name of the retro-commissioning measure and its assigned number, a brief description of the measure, recommended corrections, the benefits attained, estimated annual savings (energy and cost), the estimated implementation cost, and the simple payback.</p> <p>5. Deficiencies corrected: 5.1. List of repairs completed during investigation. 5.2. List of deficiencies corrected, including, for each deficiency, the date corrected, by whom the correction was made, the actual cost, and projected savings.</p> <p>Existing rule of year 2012 (g) Contents of retro-commissioning report. In accordance with §28-308.3.1 of the Administrative Code, the retro-commissioning agent must prepare and certify a retro-commissioning report that satisfies the requirements of §28-308.3 of the Administrative Code and this rule. Such report must be retained by the owner in accordance with subdivision (j) of this section.</p>		

13	Technical	Current Facility Requirements (CFR)	<p>LL87/09 CURRENT FACILITY REQUIREMENTS. The owner's current operational needs and requirements for a building, including temperature and humidity set points, operating hours, filtration, and any integrated requirements such as controls, warranty review, and service contract review.</p>	<p style="text-align: center;">New</p> <p>This addition re-clarifies the scope of work for LL87/09 Section defining Current facility requirements (CFR) has been added to the retro-commissioning procedures. Acceptable rationale must be documented and can include needs of a space use as defined by owner interviews, tenant leasing requirements, and tenant controlled set points and setbacks. CFR must be justified by recognized industry references including standards, manufacturer's guidelines and building codes.</p>	<p>The Current Facility Requirements (CFR) will be the following for all space uses served by a base building system, unless the agent provides acceptable rationale demonstrating otherwise. Acceptable rationale must be documented and can include needs of a space use as defined by owner interviews, tenant leasing requirements, and tenant controlled set points and setbacks. The CFR must be justified by references including ASHRAE fundamentals, heating, ventilation, and air conditioning (HVAC) systems and equipment, and applications handbooks, ANSI references, Illuminating Engineering Society (IES) lighting handbook, New York City Housing Maintenance Code (HMC), New York City Building Code (BC), approved design drawings and/or manufacturer's guidelines. Acceptable rationale does not include needs as a result of deficient equipment or historic operations.</p> <ul style="list-style-type: none"> • Winter indoor space temperatures should be between 68 and 76 degrees F and summer indoor space temperatures should be between 72 and 80 degrees F during occupied periods of time for non-common tenant areas (without individual HVAC controls) and non-common owner areas of the facility. • Operating steam system pressure (cut-out setting) should not be greater than four psig for low pressure steam heated buildings. For any exception requiring higher operating steam pressure, substantial documentation including design/as-built documents indicating design operating steam pressure shall be submitted to, and accepted by the department. • Domestic hot water is stored and delivered per the HMC for Group R occupancies and per the New York City Plumbing Code requirements for all other occupancies. • Minimum outside air requirements are met in areas with mechanical supply ventilation per the design and/or New York City Mechanical Code effective at the time of installation of the major equipment. • Lighting levels (foot candles) are in accordance with the BC and HMC for all egress lighting including common laundry rooms and in accordance with IES lighting handbook for all other space use types in the common areas and non-common owner areas. • Daily, weekly, and seasonal operating hours, including occupied and non-occupied hours, of the building and base building systems.
					<ul style="list-style-type: none"> • A description of the current space use of base building areas. • A description of any changes in space use that impact the energy consumption of the heating, cooling, ventilation, or domestic hot water systems. <p>Retro-commissioning agent must consider the following to develop, document, and define the CFR:</p> <ul style="list-style-type: none"> • Age of facility. • Interviews with owners, facility manager, and occupants. • Available design or as-built drawings. • Lease terms with regard to energy usage.
14	Technical	Retro-Commissioning Items	<p>LL87/09 1. Operating protocols, calibration, and sequencing: 1.1. HVAC temperature and humidity set points and setbacks are appropriate and operating schedules reflect major space occupancy patterns and the current facility requirements. 1.2. HVAC sensors are properly calibrated. 1.3. HVAC controls are functioning and control sequences are appropriate for the current facility requirements. 1.4. Loads are distributed equally across equipment when appropriate (i.e. fans, boilers, pumps, etc. that run in parallel). 1.5. Ventilation rates are appropriate for the current facility requirements. 1.6. System automatic reset functions are functioning appropriately, if applicable. 1.7. Adjustments have been made to compensate for oversized or undersized equipment so that it is functioning as efficiently as possible. 1.8. Simultaneous heating and cooling does not occur unless intended. 1.9. HVAC system economizer controls are properly functioning, if applicable. 1.10. The HVAC distribution systems, both air and water side, are balanced. 1.11. Light levels are appropriate to the task.</p>	<p style="text-align: center;">Updated</p> <p>28 retro-commissioning items have been re-organized, re-sorted and re-classified to re-clarify the scope of work for LL87/09 and modify existing rule of year 2012</p>	<p>§ 6. Paragraphs (1) and (2) of subdivision (f) of Section 103-07 of Subchapter C of Chapter 100 of Title 1 of the Rules of the City of New York are REPEALED and new paragraphs (1), (2), (3), (4) and (5) are added to read as follows:</p> <p>(1) HVAC and service water equipment. (i) Pre-testing verification. (ii) Functional performance testing. (iii) Temperature and pressure setpoints and setbacks. (iv) Sensors. (v) Simultaneous heating and cooling. (vi) Boilers tuned for optimal efficiency. (vii) Manual override remediation. (viii) Leaks.</p> <p>(2) HVAC and service water distribution. (i) Pipe insulation. (ii) High pressure steam traps. (iii) One-pipe steam distribution. (iv) Two-pipe steam distribution. (v) Air-side distribution. (vi) Water-side distribution. (vii) Domestic hot water system. (viii) Mechanical ventilation rates.</p> <p>(3) Lighting system. (i) Light levels. (ii) Sensors and controls. (iii) Windows and doors.</p>
			<p>1.12. Lighting sensors and controls are functioning properly according to occupancy, schedule, and/or available daylight, where applicable. 1.13. Domestic hot water systems have been checked to ensure proper temperature settings. 1.14. Water pumps are functioning as designed. 1.15. System water leaks have been identified and repaired.</p> <p>2. Cleaning and repair: 2.1. HVAC equipment (vents, ducts, coils, valves, soot bin, etc.) is clean. 2.2. Filters are clean and protocols are in place to replace, as appropriate. 2.3. Light fixtures are clean. 2.4. Motors, fans, and pumps, including components such as belts, pulleys, and bearings, are in good operating condition. 2.5. Steam traps have been replaced as required to maintain efficient operation, if applicable. 2.6. Manual overrides on existing equipment have been remediated. 2.7. Boilers have been tuned for optimal efficiency, if applicable. 2.8. Exposed hot and chilled water and steam pipes three (3) inches or greater in diameter with associated control valves are insulated in accordance with the standards of the New York city energy conservation code as in effect for new systems installed on or after July 1, 2010.</p>		<p>(4) Envelope. (i) Sealants and weather-stripping. (ii) Windows and doors.</p> <p>(5) Training and documentation.</p>

			<p>2.9 In all easily accessible locations, sealants and weather stripping are installed where appropriate and are in good condition.</p> <p>3. Training and documentation:</p> <p>3.1. Permits for all HVAC, electrical and plumbing equipment are in order.</p> <p>3.2. Critical operations and maintenance staff have received appropriate training, which may include labor/management training, on all major equipment and systems and general energy conservation techniques.</p> <p>3.3. Operational and maintenance record keeping procedures (log books, computer maintenance records, etc.) have been implemented.</p> <p>3.4. The following documentation is on site and accessible to the operators: the operations and maintenance manuals, if such manuals are still available from the manufacturer, the maintenance contracts, and the most recent retro-commissioning report.</p>		
			<p>Existing rule of year 2012</p> <p>(1) Operating protocols, calibration, and sequencing.</p> <p>(i) Heating, ventilation, and air conditioning (HVAC) system temperature and humidity set points and setbacks.</p> <p>(ii) HVAC sensors.</p> <p>(iii) HVAC controls.</p> <p>(iv) Load distribution.</p> <p>(v) Ventilation rates.</p> <p>(vi) System automatic reset functions.</p> <p>(vii) Adjustments to oversized or undersized equipment.</p> <p>(viii) Simultaneous cooling and heating.</p> <p>(ix) HVAC System Economizer controls.</p> <p>(x) HVAC distribution balancing.</p> <p>(xi) Light levels.</p> <p>(xii) Lighting sensors and controls.</p> <p>(xiii) Domestic hot water heater temperature settings.</p> <p>(xiv) Water pumps.</p> <p>(xv) Water leaks.</p> <p>(2) Cleaning and repair.</p> <p>(i) HVAC equipment.</p> <p>(ii) Filter cleaning and replacement.</p> <p>(iii) Light fixture cleanliness.</p> <p>(iv) Operating conditions of motors, fans and pumps.</p>		
			<p>(v) Steam traps.</p> <p>(vi) Manual override remediation.</p> <p>(vii) Boilers tuned for optimal efficiency.</p> <p>(viii) Pipe insulation.</p> <p>(ix) Sealants and weather stripping.</p> <p>(x) Training and documentation.</p>		
15	Technical	HVAC and service water equipment - Pre test verification and Functional performance testing	<p>LL87/09</p> <p>RETRO-COMMISSIONING. A systematic process for <u>optimizing the energy efficiency</u> of existing base building systems through the identification and correction of deficiencies in such systems, including <u>but not limited to</u> repairs of defects, cleaning, adjustments of valves, sensors, controls or programmed settings, and/or changes in operational practices.</p>	<p>New</p> <p>This addition re-clarifies the scope of work for LL87/09 and modifies existing rule of year 2012</p> <p>Added a sample set of Pre-testing verification of all major equipment and its sub-equipment and components in all common areas, at least 20% of such equipment in the non-common owner areas and at least 10% of such equipment in the accessible non-common tenant areas must be conducted to check for cleanliness, proper operation and correction.</p> <p>Existing HVAC equipment and filter cleaning, replacement under cleaning and repair are now incorporated within the pre test verification checklist.</p> <p>Added Functional Performance testing for all major equipment in the common areas.</p> <p>Existing HVAC controls, Load distribution, system automatic reset functions, HVAC economizer controls and water pumps sections are now incorporated within the functional performance testing.</p>	<p>(1) HVAC and service water equipment.</p> <p>(i) Pre-testing verification. An inspection, documented through pre-test verification forms, of all major equipment and its sub-equipment and components located in all common areas, at least 20% of such equipment located in non-common owner areas and at least 10% of such equipment located in accessible non-common tenant areas must be conducted to check for cleanliness and proper operation. Such inspection ensures that the system is able to be tested. Where major equipment, sub-equipment, and components are found to require cleaning, repair or correction for proper operation, correct all deficiencies prior conducting functional performance testing and document the post-correction condition in the retro-commissioning report under issues log.</p> <p>(ii) Functional performance testing. Functional performance testing. Performance verification through functional performance testing for all major equipment and its sub-equipment and components located in the common areas, at least 20% of such equipment located in the non-common owner areas and at least 10% of such equipment located in the non-common tenant areas must be performed during normal operating conditions. Functional performance testing includes but is not limited to all controls, actuation, automation and sequencing functions impacting energy consumption of the major equipment such as control sequence of operation, economizer function, staging and load distribution, automatic reset function and integrated system level testing. The functional performance test process and results must be reported on forms acceptable to the department. Proper function must be determined from field observation and may include interviews with facility staff, trend analysis, or dedicated data loggers. Where equipment requires correction, the condition must be corrected and the post-correction condition must be documented in the retro-commissioning report. Completed functional performance test forms must be included in the retro-commissioning report.</p>
16	Technical	HVAC and service water equipment - Temperature and pressure setpoints and set backs	<p>LL87/09</p> <p>1. Operating protocols, calibration, and sequencing:</p> <p>1.1. HVAC temperature and humidity set points and setbacks are appropriate and operating schedules reflect major space occupancy patterns and the current facility requirements.</p> <p>1.7. Adjustments have been made to compensate for oversized or undersized equipment so that it is functioning as efficiently as possible.</p> <p>Existing rule of year 2012</p> <p>(1) Operating protocols, calibration, and sequencing.</p> <p>(i) Heating, ventilation, and air conditioning (HVAC) system temperature and humidity set points and setbacks. All major system components, such as chillers, boilers, cooling towers, air handlers, or pumps, must be tested to verify that such system set points and setbacks are appropriate to the current facility requirements. Where set points and setbacks require correction, the condition must be corrected and noted on the retro-commissioning report.</p> <p>(vii) Adjustments to oversized or undersized equipment. Only major equipment, such as chillers, boilers, cooling towers, air handlers, or pumps, serving base building systems must be required to be adjusted to perform as efficiently as possible for the current facility requirements. Where the equipment requires correction, the condition must be corrected and noted on the retro-commissioning report.</p>	<p>Updated</p> <p>Temperature and Humidity setpoints and setbacks have been revised to temperature and pressure setpoints and setbacks.</p> <p>Added a sample set of testing, verification and correction of such system set points are appropriate to the CFR and setbacks operate during unoccupied periods as stated by the CFR, and for all major equipment and its sub-equipment and components in all common areas, at least 20% of such equipment in the non-common owner areas and at least 10% of such equipment in the non-common tenant areas</p>	<p>(iii) Temperature and pressure setpoints and setbacks.</p> <p>All major equipment and its sub-equipment and components located in all common areas, at least 20% of such equipment located in the non-common owner areas and at least 10% of such equipment located in the non-common tenant areas must be tested to verify that such system set points are appropriate to the CFR and setbacks operate during unoccupied periods as stated by the CFR. Where set points and setbacks require correction, the condition must be corrected and the post-correction condition must be documented in the retro-commissioning report.</p>

17	Technical	HVAC and service water equipment - Sensors calibration	<p>LL87/09 1.12. Lighting sensors and controls are functioning properly according to occupancy, schedule, and/or available daylight, where applicable.</p> <p>Existing rule of year 2012 (ii) HVAC sensors. (A) All critical sensors that are part of a control sequence and have direct control of a major piece of equipment such as a chiller, boiler, pump, or air handling unit of capacity greater than 5,000 cubic feet per minute must be tested for proper calibration. Where sensors require correction, the condition must be corrected and noted on the retro-commissioning report. (B) For monitoring sensors that measure air flow or temperature but are not part of a control sequence, a sample set constituting ten percent of all monitoring sensors, but in no event fewer than ten individual sensors, must be tested for proper calibration. If more than ninety percent of the sample set is found to be satisfactory, then no further sampling is required for the purposes of the retro-commissioning report. If less than ninety percent of the sample set is found to be satisfactory, then all monitoring sensors serving base building systems must be tested for proper calibration.</p>	<p>Updated</p> <p>List of sensors associated with the major equipment has been provided. All listed critical sensors and a sample set of at least 10% of the listed monitoring sensors are subject to the requirements of calibration. If more than 80% of the sample set is found to be satisfactory, then no further sampling is required. If less than 80% of the sample set is found to be satisfactory, then all monitoring sensors must be tested for proper calibration and correction if sensors require correction.</p>	<p>(iv) Sensors. Sensors include the following in Table 3 below, if present and serving major equipment(s). Table 3 – Critical and Monitoring Sensors Associated with Major Equipment. AHU/FCU/H&V/Packaged and Split AC Units: OA temp Supply and Return air temp Mixed air temp Supply and return air flow rate Static pressure Zone temp BOILER: OA temp Return temp Supply temp System pressures (Steam Boilers) Indoor zone temp COOLING TOWER: OA temp (Dry bulb and wet bulb) Inlet water temp Outlet water temp Flow rate Humidity Supply and return temp CHILLER: OA temp Evap. water temp in Evap. water temp out</p>
			<p>Where sensors require correction, the condition must be corrected and noted on the retro-commissioning report.</p>		<p>Cond water temp in Cond water temp out Zone temp and System pressures (A) All critical sensors that are part of a control sequence and have direct control of major equipment located in the common area must be tested for proper calibration. Acceptable and allowable tolerances for proper calibration must be supported by a reference acceptable to industry or manufacturer's guidelines. Where sensors require correction, the condition must be corrected and the post correction condition must be documented in the retro-commissioning report. (B) For monitoring sensors that are not part of a control sequence, a sample set constituting at least 10% of all monitoring sensors within the common area must be tested for proper calibration. Acceptable and allowable tolerances for proper calibration must be supported by a reference acceptable to industry or manufacturer's guidelines. If more than 80% of the sample set is found to be satisfactory, then no further sampling is required for the purposes of the retro-commissioning report. If less than 80% of the sample set is found to be satisfactory, then all monitoring sensors must be tested for proper calibration. Where sensors require correction, the condition must be corrected and the post correction condition must be documented in the retro-commissioning report.</p>
18	Technical	HVAC and service water equipment - Simultaneous heating and cooling	<p>LL87/09 1.8. Simultaneous heating and cooling does not occur unless intended.</p> <p>Existing rule of year 2012 (viii) Simultaneous cooling and heating. A sample set constituting ten percent of the HVAC system air handling units must be tested to verify that simultaneous heating and cooling is not occurring, unless intended. If the entirety of the sample set is found to be without unintended simultaneous heating and cooling, then no further sampling is required for the purposes of the retro-commissioning report. If any portion of the sample set is found to have unintended simultaneous heating and cooling, then all base building air handling units must be tested for unintended simultaneous heating and cooling. Where unintended simultaneous cooling and heating is occurring, the condition must be corrected and noted on the retro-commissioning report.</p>	<p>Updated</p> <p>Limited the scope of work to only major equipment Air Handling Units in the common areas and at least 20% of the major equipment air handling units in the non-common owner areas must be tested and corrected if simultaneous heating and cooling is not occurring, unless intended.</p>	<p>(v) Simultaneous heating and cooling. All major equipment air handling units located in the common areas and at least 20% of the major equipment air handling units in the non-common owner areas must be tested to verify that simultaneous heating and cooling is not occurring, unless intended. Where unintended simultaneous cooling and heating is occurring, the condition must be corrected and post correction condition must be documented in the retro-commissioning report.</p>
19	Technical	HVAC and service water equipment - Boilers tuned for optimal efficiency.	<p>LL87/09 2.7. Boilers have been tuned for optimal efficiency, if applicable.</p> <p>Existing rule of year 2012 (vii) Boilers tuned for optimal efficiency. A combustion efficiency test must be conducted for each boiler serving a base building system, and the boiler must be tuned and cleaned to perform at optimal efficiency for the current facility requirements. However, if the boiler has been tested and tuned within the twelve months prior to the reporting date of the retro-commissioning report, then the records of such tuning must be included in the retro-commissioning report, and no further testing and tuning will be required.</p>	<p>Updated</p> <p>A combustion efficiency test must be conducted for each major equipment boiler (includes H-stamped domestic hot water heater). If manufacturer's guidelines are not available, cleaning and tuning must be conducted to meet the requirements in Table provided at high and low fire rates for the dominant fuel type. Included results (Actual print-outs) of combustion efficiency test in the retro-commissioning report.</p>	<p>(vi) Boilers tuned for optimal efficiency. A combustion efficiency test must be conducted for each low pressure major equipment boiler (includes H-stamped domestic hot water heater). Each boiler must be tuned and cleaned to perform as per manufacturer's guidelines for combustion efficiency (%), oxygen (%), carbon dioxide (%), ambient air temperature (degrees F), stack temperature (flue gas temp minus combustion air temp, degrees F), carbon monoxide (ppm), and smoke number, as applicable. If manufacturer's guidelines are not available, cleaning/ and tuning and combustion efficiency testing must be conducted to meet the requirements in Table 4 below at high and low fire rates for the dominant fuel type. Results (Actual print-outs directly obtained from the calibrated combustion analyzer) of the combustion efficiency test must be included in the retro-commissioning report. Table 4 – Acceptable Range for Combustion Efficiency Test Results: High Fire: Residential/Commercial Gas Fired: Atmospheric and Fan Assist Boilers : Oxygen (%) : 6% to 9% Stack temperature (deg. F) : 325 to 450 Carbon Monoxide (ppm) Air Free : <50 ppm</p>

					<p>Smoke number --</p> <p>Power Burners: Oxygen (%) : 3% to 6% Stack temperature (deg. F) : 350 to 550 Carbon Monoxide (ppm) Air Free : <100 ppm Smoke number : --</p> <p>Commercial Oil Fired: Power Burners: Oxygen (%) : 3% to 6% Stack temperature (deg. F) : 350 to 500 Carbon Monoxide (ppm) Air Free : <100 ppm Smoke number : Zero or Per manufacturer requirements</p> <p>Low Fire: Commercial Gas Fired: Power Burners: Oxygen (%) : 5% to 8% Stack temperature (deg. F) : 300 to 380 Carbon Monoxide (ppm) Air Free : <100 ppm Smoke number : --</p> <p>Commercial Oil Fired: Power Burners: Oxygen (%) : 6% to 10% Stack temperature (deg. F) : 300 to 400 Carbon Monoxide (ppm) Air Free: <100 ppm Smoke number : Zero or Per manufacturer requirements</p>
20	Technical	HVAC and service water equipment - Manual override remediation.	<p>LL87/09 2.6. Manual overrides on existing equipment have been remediated.</p> <p>Existing rule of year 2012 (vi) Manual override remediation. The retro-commissioning agent must confirm with facility maintenance staff that a protocol for the remediation of the issues causing manual overrides has been developed. Where such protocol is not in place, the lack of protocol must be noted as a deficiency to be corrected, and a satisfactory protocol must be developed in order to correct such deficiency, and the condition must be noted on the retro-commissioning report.</p>	<p>Updated</p> <p>Rewording of the entire section. Removed language associated with protocol for the remediation of the issues causing manual overrides. The retro-commissioning agent must confirm that major equipment is not being manually operated.</p>	<p>(vii) Manual override remediation. In all cases where the major equipment has the capability of being operated automatically, the retro-commissioning agent must confirm that major equipment is not being manually operated. Where a manual override condition exists, it must be noted as a deficiency to be corrected, and the post-correction condition must be documented in the retro-commissioning report.</p>
21	Technical	HVAC and service water equipment - Leaks	<p>LL87/09 1.15. System water leaks have been identified and repaired.</p> <p>Existing rule of year 2012 (xv) Water leaks. (A) All boilers and roof tanks must be visually checked to verify that they are not leaking water. (B) For water distribution lines and makeup water lines including steam distribution, a sample set constituting ten percent of the areas where such lines are exposed must be visually checked to verify that no leaks are present. If the entirety of the sample set is found to be without water leaks, then no further sampling is required for the purposes of the retro-commissioning report. If any portion of the sample set is found to be leaking, then all areas where such water lines are exposed must be visually checked. (C) For plumbing fixtures, such as faucets, toilets, and showerheads, served by base building systems, a sample set constituting ten percent of the fixtures must be visually checked to verify that they are without water leaks.</p>	<p>Updated</p> <p>Major equipment and its sub-equipment and components in all common areas, at least 20% of the non-common owner areas and at least 10% of the accessible non-common tenant areas must be checked for water, steam, oil, or air leaks. (Expanded the scope from just water leaks to water, refrigerant, oil, or air leaks) Replaced the entire section. No leaks associated with roof tank and plumbing fixtures are required to be checked anymore.</p>	<p>(viii) Leaks. Major equipment and its sub-equipment and components in all common areas, at least 20% of such equipment located in non-common owner areas and at least 10% of such equipment located in the accessible non-common tenant areas must be visually checked for water, steam, oil, or air leaks. These checks do not include duct tightness testing. All leaks identified must be repaired, and the post-correction condition must be documented in the retro-commissioning report.</p>
			If the entirety of the sample set is found to be without water leaks, then no further sampling is required for the purposes of the retro-commissioning report. If any portion of the sample set is found to be leaking, then all fixtures must be visually checked. All system water leaks identified must be repaired, and the condition must be noted on the retro-commissioning report.		
22	Technical	HVAC and service water distribution - Pipe insulation.	<p>LL87/09 2.8. Exposed hot and chilled water and steam pipes three (3) inches or greater in diameter with associated control valves are insulated in accordance with the standards of the New York city energy conservation code as in effect for new systems installed on or after July 1, 2010.</p> <p>Existing rule of year 2012 (viii) Pipe insulation. All exposed hot and chilled water and steam pipes three inches in diameter and greater and pipe fittings must be visually checked for insulation. Where any such pipes are found not to be insulated, they must be insulated in accordance with the New York City Energy Conservation Code and noted on the retro-commissioning report.</p> <p>Exception: Insulation with asbestos. Existing insulation with asbestos containing materials found to be in need of replacement or repair shall not be required to be removed or replaced for the purposes of the retro-commissioning report. The condition must be noted on the retro-commissioning report and correction of such condition is not required.</p>	<p>Updated</p> <p>This addition re-clarifies the scope of work for LL87/09 and modifies existing rule of year 2012 Revised the language to be in line with NYC ECC for pipe insulation of pipes three inches or greater including pipe fittings and associated valves containing steam or fluid outside the operating range of 60 degrees and 105 degrees F. Exposed steam or fluid outside the operating range of 60 degrees and 105 degrees F. Pipes three (3) inches or greater in diameter with associated control valves must insulated in the common areas, at least 20% of non-common owner areas and at least 10% of the non-common tenant areas.</p>	<p>(2) HVAC and service water distribution.</p> <p>(i) Pipe insulation. All exposed (uninsulated and/or with deteriorated insulation) pipes three inches or greater in diameter, pipe fittings, and associated valves located in the common areas, at least 20% of such equipment located in non-common owner areas and at least 10% of such equipment located in the non-common tenant areas, containing steam or fluid outside the operating temperature range of 60 degrees F and 105 degrees F must be thermally insulated in accordance with the New York City Energy Conservation Code, in effect at the time of installation, and the post-correction condition must be documented in on the retro-commissioning report.</p> <p>Exception: Existing insulation with asbestos containing materials is not required to be removed or replaced for the purposes of the retro-commissioning report. The condition must be noted on the retro-commissioning report and correction of such condition is not required.</p>

23	Technical	HVAC and service water distribution - High pressure steam traps.	<p>LL87/09 2.5. Steam traps have been replaced as required to maintain efficient operation, if applicable.</p> <p>Existing rule of year 2012 (v) Steam traps. (A) The retro-commissioning agent must confirm with facility maintenance staff that a protocol is in place for the testing of steam traps and replacement of non-functional steam traps. Where such protocol is not in place, the lack of protocol must be noted as a deficiency to be corrected. A satisfactory protocol must be developed in order to correct such deficiency and noted on the retro-commissioning report. (B) A sample set constituting ten percent of all steam traps in areas served by base building system must be tested to verify operation. If more than ninety percent of the sample set is found to be functioning properly, then no further sampling is required for the purposes of the retro-commissioning report. If less than ninety percent of the sample set is found to be functioning properly, then all areas served by the base building steam system must be tested to verify that the steam traps are operational. All steam traps found to be functioning improperly must be replaced, repaired or rebuilt, and the condition must be noted on the retro-commissioning report.</p>	<p style="text-align: center;">New</p> <p>This addition re-clarifies the scope of work for LL87/09 and modifies existing rule of year 2012 All steam traps operating above 15 PSI must either be tested using ultrasonic leak detection to verify proper operations or replaced.</p>	<p>(ii) High pressure steam traps. All high pressure steam traps operating above 15 PSI of pressure must be tested using ultrasonic leak detection to verify proper operations or replaced. All steam traps found to be functioning improperly must be replaced, repaired or rebuilt, and the condition must be noted on the retro-commissioning report.</p>
24	Technical	HVAC and service water distribution - One Pipe Steam Distribution	<p>LL87/09 1.7. Adjustments have been made to compensate for oversized or undersized equipment so that it is functioning as efficiently as possible.</p> <p>Existing rule of year 2012 (x) HVAC distribution balancing. All major systems that include chillers, boilers, cooling towers, air handlers, or pumps, must be tested for proper balance for current facility requirements. A major system as used in this subparagraph means a system that serves more than 10,000 square feet. If the system is found to be out of balance, the condition must be corrected and noted on the retro-commissioning report. System balancing may only be performed by an individual certified in the testing and balancing of HVAC systems by the National Environmental Balancing Bureau (NEBB), the Testing, Adjusting and Balancing Bureau (TABB), or the Associated Air Balance Council (AABC).</p>	<p style="text-align: center;">New</p> <p>This addition re-clarifies the scope of work for LL87/09 and modifies existing rule of year 2012 Addition of steam travel time test to confirm balanced steam distribution and working main vents.</p>	<p>(iii) One-pipe steam distribution. (A) All one-pipe steam distribution systems serving the major equipment must have steam traveling from the steam header to the end of each main loop vent(s) at an average of less than five minutes. Retro-commissioning agents must conduct the steam and travel time test using temperature data loggers (temperature sensors/thermocouples) that provide an output of timestamps and surface temperature readings. At the beginning of each test, the temperature at the end of each main loop vent must be 140 degrees F or less. At the end of the test, the end of each main loop vent must be 195 degrees F or more. (B) The average time at which the steam header reaches at least 195 degrees F and the end of each main loop vent(s) reaching at least 195 degrees F must be less than five minutes. A temperature (degrees F) vs. time (minutes) curve to be plotted in 10-second intervals and all data points logged used to plot this curve must be provided in a tabular format in the report. Data points must include time from the start of the boiler/burner until the steam reaches the header and then to the end of all main loops. (C) The retro-commissioning agent must provide a schematic plan of the steam piping distribution in the common area. This schematic plan should indicate the location of the boiler(s), supply lines, header and each main line vent.</p>
25	Technical	HVAC and service water distribution - Two-pipe steam distribution.	<p>LL87/09 2.5. Steam traps have been replaced as required to maintain efficient operation, if applicable.</p> <p>Existing rule of year 2012 (v) Steam traps. (A) The retro-commissioning agent must confirm with facility maintenance staff that a protocol is in place for the testing of steam traps and replacement of non-functional steam traps. Where such protocol is not in place, the lack of protocol must be noted as a deficiency to be corrected. A satisfactory protocol must be developed in order to correct such deficiency and noted on the retro-commissioning report. (B) A sample set constituting ten percent of all steam traps in areas served by base building system must be tested to verify operation. If more than ninety percent of the sample set is found to be functioning properly, then no further sampling is required for the purposes of the retro-commissioning report. If less than ninety percent of the sample set is found to be functioning properly, then all areas served by the base building steam system must be tested to verify that the steam traps are operational. All steam traps found to be functioning improperly must be replaced, repaired or rebuilt, and the condition must be noted on the retro-commissioning report.</p>	<p style="text-align: center;">New</p> <p>This addition re-clarifies the scope of work for LL87/09 and modifies existing rule of year 2012 Revision: Proof of differential of more than 30 degrees F and/or trap testing and documentation. Added that all steam traps in the common areas, a sample set of at least 20% of steam traps in the non common owner areas and at least 10% of steam traps in the non-common tenant area, served by the major equipment, must be tested to verify for proper function. If less than 80% of the sample set, for each sample size, is found to be functioning properly, then all respective areas served by the two pipe steam distribution system must be tested to verify the steam traps are functioning properly. All steam traps found to be functioning improperly must be replaced, Exception: Replace all traps in common area, 20% of steam traps in non-common area and 10% of steam traps in the non-common tenant areas within the last five years from the date EER is submitted. Revised the existing language for steam traps testing in its entirety.</p>	<p>(iv) Two-pipe steam distribution . (A) The main supply and main return piping surface temperatures for all two pipe steam distribution systems serving major equipment must have a differential of 30 degrees F or more. The retro-commissioning agent must conduct the differential temperature test utilizing temperature data loggers (temperature sensors or thermocouples) that provide an output listing timestamps and surface temperature readings. The retro-commissioning agent must provide Pressure vs. Time and Temperature vs. Time plots, as recorded in intervals of 5 minutes. The temperature readings must be recorded using data loggers insulated and located on the main supply/header and main return piping, and on the inlet of a condensate/vacuum tank. This test cannot be performed on systems with master traps or double steam traps; it also cannot be performed on systems with heat exchangers and heat recovery that are used to cool the condensate down. The data loggers must provide readings during two consecutive cycles of the boiler where each cycle (boiler run time) takes at least 30 minutes at the design operating pressure. (B) In the event that a two-pipe steam distribution system has a differential between the main supply and main return piping surface temperatures of not more than 30 degrees F for any duration of the test specified above, all steam traps in the common areas, at least 20% of steam traps in the non-common owner areas and at least 10% of steam traps in the non-common tenant area, served by the major equipment, must be tested to verify for proper function. If less than 80% of the sample set, for each sample size, is found to be functioning properly, then all respective areas served by the two pipe steam distribution system must be tested to verify the steam traps are functioning properly. All steam traps found to be functioning improperly must be replaced, repaired, rebuilt, or removed and the post-correction condition must be documented in the retro-commissioning report. Steam trap testing must utilize ultrasonic leak detection technology and/or a thermal imaging camera, as necessary to determine the trap condition. A comprehensive steam trap schedule including number, type, location, size (orifice) of traps and test results must be included in the retro-commissioning report. If the work required is so extensive that it would require more time than available to meet the compliance deadline, the condition may be corrected within two years of submitting the retro-commissioning report to the department and must be noted in the report.</p>
					<p>Documented verification must be submitted on a form provided by the department showing that the differential between the main supply and main return piping surface temperatures is more than 30 degrees F for any duration of the test specified in the differential temperature test described in subparagraph (A), above, after replacement, repair or rebuilding of deficient steam traps.</p> <p>Exception: If all steam traps in the common areas, at least 20% of steam traps in the non-common owner areas and at least 10% of the steam traps in the non-common tenant areas have been replaced and/or tested and verified as functioning properly, within five years from the date the EER was submitted, and supporting documentation acceptable to the department is provided, then testing of steam traps is not required. Acceptable supporting documentation includes, but is not limited to, copies of paid invoices for the completed work, steam trap test reports and post-correction findings.</p>
26	Technical	HVAC and service water distribution - air side and water distribution.	<p>LL87/09 1.10. The HVAC distribution systems, both air and water side, are balanced.</p> <p>Existing rule of year 2012 (x) HVAC distribution balancing. All major systems that include chillers, boilers, cooling towers, air handlers, or pumps, must be tested for proper balance for current facility requirements. A major system as used in this subparagraph means a system that serves more than 10,000 square feet. If the system is found to be out of balance, the condition must be corrected and noted on the retro-commissioning report. System balancing may only be performed by an individual certified in the testing and balancing of HVAC systems by the National Environmental Balancing Bureau (NEBB), the Testing, Adjusting and Balancing Bureau (TABB), or the Associated Air Balance Council (AABC).</p>	<p style="text-align: center;">New + Updated</p> <p>This addition re-clarifies the scope of work for LL87/09 and modifies existing rule of year 2012 All dampers, fans, actuators and controls associated with air-side distribution serving major equipment must be functionally tested for proper operation as per CFR. All valves on coils, automatic isolation valves at pumps, actuators and controls associated with water-side distribution serving major equipment must be functionally tested for proper operation as per CFR. Removed TAB section in its entirety. NEBB, AABC, TABB requirements do not apply any longer.</p>	<p>(v) Air-side distribution. All dampers, fans, actuators and controls associated with air-side distribution serving major equipment must be functionally tested for proper operation as per CFR. Where deficiency is identified, the condition must be corrected and the post correction condition must be documented in the retro-commissioning report. Completed functional performance test forms must be included in the retro-commissioning report.</p> <p>(vi) Water-side distribution. All valves on coils, automatic isolation valves at pumps, actuators and controls associated with water-side distribution serving major equipment must be functionally tested for proper operation as per CFR. Where deficiency is identified, the condition must be corrected and the post correction condition must be documented in the retro-commissioning report. Completed functional performance test forms must be included in the retro-commissioning report.</p>

27	Technical	Domestic hot water system	<p>LL87/09 1.13. Domestic hot water systems have been checked to ensure proper temperature settings.</p> <p>Existing rule of year 2012 (xiii) Domestic hot water heater temperature settings. All major hot water heaters serving base building systems must be visually checked to verify that the temperature settings are accurate and are appropriate for the current facility requirements. Where a given base building system is served by multiple domestic hot water heaters, a sample set constituting ten percent of such heaters, but in no event fewer than three domestic hot water heaters, must be visually checked to verify that the temperature settings are appropriate. If more than ninety percent of the sample set is found to be appropriate, then no further sampling is required for the purposes of the retro-commissioning report. If less than ninety percent of the sample set is found to be satisfactory, then all domestic hot water heaters must be visually checked to verify that the temperature settings are appropriate. Where the temperature settings are found to require correction, the condition must be corrected and noted on the retro-commissioning report.</p>	<p>Updated</p> <p>This addition re-clarifies the scope of work for LL87/09 and modifies existing rule of year 2012 All storage and delivery hot water temperatures of major equipment hot water heaters must be checked to verify that the water temperature settings are appropriate for the CFR.</p>	<p>(vii) Domestic hot water system temperature settings. All storage and delivery hot water temperatures of major equipment hot water heaters must be checked to verify that the water temperature settings are appropriate for the CFR. Where the temperature settings are found to require correction, the condition must be corrected and the post correction condition must be documented in the retro-commissioning report.</p>
28	Technical	Mechanical ventilation rates.	<p>LL87/09 1.5. Ventilation rates are appropriate for the current facility requirements.</p> <p>Existing rule of year 2012 (v) Ventilation rates. A sample set constituting ten percent of all outdoor air intakes, but in no event fewer than three outdoor air intakes, must be measured to verify that the flow rates are appropriate for the current facility requirements. If more than ninety percent of the sample set is found to be appropriate, then no further sampling is required for the purposes of the retro-commissioning report. If less than ninety percent of the sample set is found to be appropriate, then all outdoor air intakes serving base building systems must be measured. Where flow rates require correction, the condition must be corrected and noted on the retro-commissioning report.</p>	<p>Updated</p> <p>This addition re-clarifies the scope of work for LL87/09 and modifies existing rule of year 2012 Change the less percentage of passing from 90% to 80%</p>	<p>(viii) Mechanical ventilation rates. A sample set constituting at least 10% of all mechanical outdoor air intakes, but in no event fewer than three outdoor air intakes, must be measured to verify that the flow rates are appropriate for the CFR. If more than 80% of the sample set is found to be appropriate, then no further sampling is required for the purposes of the retro-commissioning report. If less than 80% of the sample set is found to be appropriate, then all mechanical outdoor air intakes serving base building systems must be measured. Where flow rates require correction, the condition must be corrected and the post correction condition must be documented in the retro-commissioning report.</p>
29	Technical	Lighting system.	<p>LL87/09 1.11. Light levels are appropriate to the task. 1.12. Lighting sensors and controls are functioning properly according to occupancy, schedule, and/or available daylight, where applicable.</p> <p>Existing rule of year 2012 (xi) Light levels. A sample set constituting ten percent of the area served by base building lighting systems must be tested to verify that the lighting levels are appropriate for the current facility requirements. The sample set should include areas of different uses. If more than ninety percent of the sample set is found to be within fifteen percent of current facility required lighting levels for a given area, then no further sampling is required for the purposes of the retro-commissioning report. If less than ninety percent of the sample set is found to be within fifteen percent of current facility required lighting levels, then all areas served by the base building lighting system must be tested. Where the light levels are found to require correction, the condition must be corrected and noted on the retro-commissioning report. (xii) Lighting sensors and controls. A sample set constituting ten percent of the area served by base building lighting systems must be checked to verify that the lighting sensors and controls are functioning properly.</p>	<p>Updated</p> <p>This addition re-clarifies the scope of work for LL87/09 and modifies existing rule of year 2012 Clarified the language for lighting levels: Lighting levels (foot candles) in all common areas, and at least 20% of the non-common owner areas must comply with the CFR. The sample set should include at least 10% of each area of different use.</p> <p>Sensors and controls: Added all common area lighting systems, at least 20% of the interior lighting systems in the non-common owner areas, and all exterior lighting systems must be checked to verify that the lighting sensors and controls are functioning properly and correction. Light fixture cleanliness sections has been removed.</p>	<p>3) Lighting system. (i) Light levels. Lighting levels (foot candles) in all common areas and lighting levels in at least 20% of the non-common owner areas must comply with the CFR. The sample set should include at least 10% of each area of different use. Where the light levels are found to require correction, the condition must be corrected and the post-correction condition must be documented in the retro-commissioning report. (ii) Sensors and controls. All interior lighting systems in the common areas, at least 20% of the interior lighting systems in the non-common owner areas, and all exterior lighting systems must be checked to verify that the lighting sensors and associated automatic lighting controls are functioning properly. Where lighting sensors and controls are found to require correction, the condition must be corrected and the post-correction condition must be documented in the retro-commissioning report.</p>
			<p>The sample set should include areas of different uses. If more than ninety percent of the sample set is found to be served by properly functioning sensors and controls, then no further sampling is required for the purposes of the retro-commissioning report. If less than ninety percent of the sample set is found to be served by deficient sensors and controls, then all areas served by the base building lighting system must be checked to verify that the lighting sensors and controls are functioning properly. Where lighting sensors and controls are found to require correction, the condition must be corrected and noted on the retro-commissioning report.</p>		
30	Technical	Envelope - Sealants and weather-stripping.	<p>LL87/09 BASE BUILDING SYSTEMS. The systems or subsystems of a building that use energy and/or impact energy consumption including: 1. The building envelope.</p> <p>Existing rule of year 2012 (ix) Sealants and weather stripping. A visual inspection must be conducted in a sample set constituting ten percent of all accessible locations to confirm that sealants and weather stripping are installed and in good condition. If any portion of the sample set is found to require correction, then all accessible locations must be visually inspected. Where any sealant or weather stripping is found to require correction, the condition must be corrected and noted on the retro-commissioning report. Exception: Sealants and weather stripping with asbestos. Sealants and weather stripping with asbestos containing materials shall not be required to be removed or replaced for the purposes of the retro-commissioning report. The condition must be noted on the retro-commissioning report and correction of such condition is not required.</p>	<p>Updated</p> <p>This addition re-clarifies the scope of work for LL87/09 and modifies Existing rule of year 2012 Revised language: An inspection must be conducted in common areas, at least 20% of the non-common owner areas and at least 10% of non-common tenant areas to confirm that accessible sealants and weather stripping are installed around doors, windows, conduits, piping, joints, and other areas of potential major air infiltration and in good condition.</p>	<p>(4) Envelope. (i) Sealants and weather-stripping. An inspection must be conducted in all common areas, at least 20% of non-common owner areas and at least 10% of non-common tenant areas to confirm that accessible sealants and weather stripping are installed around doors, windows, conduits, piping, joints, and other areas of potential major air infiltration and in good condition. Where any sealant or weather stripping is found to require correction, the condition must be corrected and the post-correction condition must be documented in the retro-commissioning report. Exception: Sealants and weather stripping with asbestos containing materials shall not be required to be removed or replaced for the purposes of retro-commissioning. The condition must be noted on the retro-commissioning report and correction of such condition is not required.</p>

31	Technical	Envelope - Windows and doors	<p>LL87/09 BASE BUILDING SYSTEMS. The systems or subsystems of a building that use energy and/or impact energy consumption including: 1. The building envelope.</p>	<p>New This addition re-clarifies the scope of work for LL87/09 An inspection must be conducted in common areas to confirm that all windows and doors are in good condition and not broken resulting in air infiltration. Where any door or window is allowing for air infiltration, the condition must be corrected and the post correction condition must be documented in the retro-commissioning report.</p>	<p>(ii) Windows and doors. An inspection must be conducted in common areas to confirm that all windows and doors are in good condition. Where any door or window is not in good condition, the condition must be corrected and the post-correction condition must be documented in the retro-commissioning report.</p>
32	Technical	Training and documentation.	<p>LL87/09 3. Training and documentation: 3.1. Permits for all HVAC, electrical and plumbing equipment are in order. 3.2. Critical operations and maintenance staff have received appropriate training, which may include labor/management training, on all major equipment and systems and general energy conservation techniques. 3.3. Operational and maintenance record keeping procedures (log books, computer maintenance records, etc.) have been implemented. 3.4. The following documentation is on site and accessible to the operators: the operations and maintenance manuals, if such manuals are still available from the manufacturer, the maintenance contracts, and the most recent retro-commissioning report. §28-308.3.3 Documentation of retro-commissioning. A copy of the latest up-to-date equipment manuals and the most recent retro-commissioning report shall be maintained at every covered building and shall be made available upon request for inspection by the department. Existing rule of year 2012 (x) Training and documentation. On-site documentation in accordance with §28-308.3(3) of the Administrative Code must be verified and noted on the retro-commissioning report.</p>	<p>Updated This addition re-clarifies the scope of work for LL87/09 and modifies existing rule of year 2012 Revised language to include : Training of critical operations and maintenance staff on the energy conservation techniques and preventative maintenance schedules, based on manufacturer's guidelines or recognized industry standards, for all major equipment and sub-systems must be documented in the retro-commissioning report.</p>	<p>(5) Training and documentation. On-site documentation in accordance with § 28-308.3(3) of the Administrative Code must be verified and noted on the retro-commissioning report. Training of critical operations and maintenance staff on the energy conservation techniques and preventative maintenance schedules, based on manufacturer's guidelines or recognized industry standards, for all major equipment and sub-systems must be documented in the retro-commissioning report.</p>
			<p>Verification of training of critical operations and maintenance staff must be noted on the retro-commissioning report. (j) Record retention. Owners of covered buildings as defined in § 28-308.1 of the Administrative Code must maintain the Energy Audit Report required by §28-308.2.1 of the Administrative Code and the Retro-commissioning Report required by §28-308.3.1 of the Administrative Code as proof of energy audits and retro-commissioning as required in Article 308. Such records must be retained for eleven years from the required submission date and must be made available to the department upon request.</p>		
33	Administrative	Report Submission (ERR)	<p>LL87/09 §28-308.4 Energy efficiency report required. Except as otherwise provided in section 28-308.7, the owner of a covered building shall file an energy efficiency report for such building between January first and December thirty-first of the calendar year in which such report is due pursuant to this section and between January first and December thirty-first of every tenth calendar year thereafter. §28-308.4.2 Combined audit and retro-commissioning. Nothing in this article shall prevent an owner from performing the audit and the retro-commissioning in a combined process, provided that all the requirements of sections 28-308.2 and 28-308.3 are met. §28-308.5 Content of energy efficiency report. Except as otherwise provided in section 28-308.7, the energy efficiency report shall include, in a format prescribed by the department, (i) the energy audit report or documentation substantiating that an exception as set forth in section 28-308.2 applies to such building, and (ii) the retro-commissioning report or documentation substantiating that an exception as set forth in section 28-308.3 applies to such building.</p>	<p>New This addition re-clarifies the scope of work for LL87/09 and modifies existing rule of year 2012 The energy audit and retro-commissioning report must be uploaded through the web-based Energy Audit template tool when submitting to the department with EERC1. The EER must include the Deep Energy Retrofit Plan Analysis tool when submitted to the department. The results of this tool must also be presented to the owner prior submitting to the department.</p>	<p>(h) Contents of the EER. An EER in accordance with § 28-308.5 of the Administrative Code must be submitted to the department in accordance with § 28-308.4 of the Administrative Code on forms prescribed by the department. The EER must include the Deep Energy Retrofit Plan Analysis tool when submitted to the department. The results of this tool must also be presented to the owner prior submitting to the department.</p>
			<p>Existing rule of year 2012 (h) Contents of Energy Efficiency Report. An Energy Efficiency Report in accordance with §28-308.5 of the Administrative Code must be submitted to the department in accordance with §28-308.4 of the Administrative Code on forms prescribed by the department.</p>		
34	Administrative	Multi covered buildings on a lot separately, or share base building systems, or different tax lots share base buildings	<p>Existing rule of year 2012 (i) Multiple buildings. (1) Multiple buildings on a lot. Two or more buildings on a lot that constitute a covered building in accordance with §28-308.1 of the Administrative Code are subject to an energy audit and retro-commissioning of base building systems as follows: (i) Multiple buildings on a covered lot that are equipped with base building systems that are wholly separate from each other are subject to the requirements for an EER for each individual building. (ii) Multiple buildings on a covered lot that share base building systems are subject to the requirements for an EER for each grouping of buildings that share base building systems.</p>	<p>No change</p>	<p>(i) Multiple buildings. (1) Multiple buildings on a lot. Two or more buildings on a lot that constitute a covered building in accordance with § 28-308.1 of the Administrative Code are subject to an energy audit and retro-commissioning of base building systems as follows: (i) Multiple buildings on a covered lot that are equipped with base building systems that are wholly separate from each other are subject to the requirements for an EER for each individual building. (ii) Multiple buildings on a covered lot that share base building systems are subject to the requirements for an EER for each grouping of buildings that share base building systems. (2) Multiple buildings on multiple tax lots that share systems. Two or more buildings on more than one tax lot that share base building systems are subject to the requirements for an EER for each grouping of buildings that share base building systems.</p>

35	Administrative	Buildings on different blocks with shared base building systems	<p>Existing rule of year 2012</p> <p>(3) Buildings on different blocks with shared base building systems. Two or more buildings on separate blocks that constitute a covered building in accordance with §28-308.1 of the Administrative Code are subject to the requirements for an EER for each grouping of buildings that share base building systems. The due date for the EER will be in the calendar year with a final digit that is the same as the last digit of the block number that is highest or with respect to a city building as defined in §28-308.1 of the Administrative Code in accordance with the schedule of the Department of Citywide Administrative Services.</p>	<p>New</p> <p>This addition re-clarifies the scope of work for LL87/09 and modifies existing rule of year 2012</p> <p>The owner must notify the department by December 31 of the year in which the earliest covered building is due to comply, out of all covered buildings on different blocks with shared base building system(s), through the form prescribed by the department.</p>	<p>(3) Buildings on different blocks with shared base building systems. Two or more buildings on separate blocks that constitute a covered building in accordance with § 28-308.1 of the Administrative Code are subject to the requirements for an EER for each grouping of buildings that share base building systems. The due date for the EER will be in the calendar year with a final digit that is the same as the last digit of the block number that is highest or with respect to a city building as defined in § 28-308.1 of the Administrative Code in accordance with the schedule of the Department of Citywide Administrative Services. The owner must notify the department by December 31 of the year in which the earliest covered building is due to comply, out of all covered buildings on different blocks with shared base building system(s), through the form prescribed by the department.</p>
36	Administrative	Multiple covered buildings under cooperative corporations		<p>New</p> <p>This addition re-clarifies the scope of work for LL87/09 and modifies existing rule of year 2012</p>	<p>(4) Multiple covered buildings under cooperative corporations. A cooperative corporation that owns multiple covered buildings located on different tax block numbers that is required to file an EER for more than one covered building in different calendar years, may consolidate all such EERs into one report, disaggregated by covered building, due no later than the year in which the last EER would be due, which shall be accepted by the department in satisfaction of the requirements of this section for each covered building included in such consolidated report. The owner must notify the department by December 31 of the year in which the earliest covered building is due to comply through the form prescribed by the department.</p>
37	Administrative	Extension of time to file report	<p>Existing rule of year 2012</p> <p>(l) Extension of time to file report.</p> <p>(1) An owner may apply for an extension of time to file an energy efficiency report if, despite good faith efforts, the owner is unable to complete the required energy audit and retro-commissioning prior to the due date of the report, for reasons other than financial hardship of the building. The application must be on a form provided by the department and must be filed by October 1 of the year in which the report is due.</p> <p>(2) An owner may apply for annual extensions of time to file an energy efficiency report based on the financial hardship of the building. The application must be on a form provided by the department and must be filed by October 1 of the year in which the report is due and by October 1 of every subsequent year for which an extension is requested.</p>	<p>Updated</p> <p>This addition re-clarifies the scope of work for LL87/09 and modifies existing rule of year 2012</p> <p>The due date for the application to file an extension request is changed from October 1 to December 31</p>	<p>(l) Extension of time to file report.</p> <p>(1) An owner may apply for an extension of time to file an EER if, despite good faith efforts, the owner is unable to complete the required energy audit and retro-commissioning prior to the due date of the report, for reasons other than financial hardship of the building. The application must be on a form provided by the department and must be filed by December 31 of the year in which the report is due.</p> <p>(2) An owner may apply for annual extensions of time to file an EER based on the financial hardship of the building. The application must be on a form provided by the department and must be filed by October 1 of the year in which the report is due and by December 31 of every subsequent year for which an extension is requested.</p>
38	Administrative	EER under Comprehensive Review		<p>New</p> <p>This addition re-clarifies the scope of work for LL87/09 and modifies existing rule of year 2012</p> <p>A violation will be issued if an EER submission that is chosen for comprehensive review fails to resolve all issued objections after the third revision or within two years from the date of issuance of the first Notice of Objections, whichever occurs first. Such EER submission shall be subject to a penalty for failure to submit an acceptable EER</p>	<p>§ 9. Subdivisions (m) and (n) of Section 103-07 of Subchapter C of Chapter 100 of Title 1 of the Rules of the City of New York are relettered subdivisions (n) and (o) and amended and a new subdivision (m) is added to read as follows:</p> <p>(m) EER under comprehensive review. A violation will be issued if an EER submission that is chosen for comprehensive review fails to resolve all issued objections after three revisions, or two years from the date of issuance of the first Notice of Objections, whichever occurs first. Such EER submission shall be subject to a penalty for failure to submit an acceptable EER in accordance with subdivision (n) of this section.</p>
39	Administrative + Technical	Violation and penalty	<p>Existing rule of year 2012</p> <p>(m) Violation and penalty. Failure to submit an EER is a Major (Class 2) violation which may result in a penalty of \$3,000 in the first year and \$5,000 for each additional year until the EER is submitted to the department. The department will not accept any outstanding EER submission if outstanding penalties are not paid in full.</p>	<p>Updated</p> <p>This addition re-clarifies the scope of work for LL87/09 and modifies existing rule of year 2012</p> <p>Incorporated "Acceptable" EER definition within violation and penalty section</p> <p>An acceptable EER is a technical energy audit and retro-commissioning report filed by an energy auditor and retro-commissioning agent that meets the requirements of the Administrative Code and this section, as determined by the department.</p>	<p>(n) Violation and penalty. Failure to submit an acceptable EER is a Major (Class 2) violation which may result in a penalty of \$3,000 in the first year and \$5,000 for each additional year until the EER is submitted to the department. The department will not accept any outstanding EER submission if outstanding penalties are not paid in full.</p>
40	Administrative	Challenge to violations	<p>Existing rule of year 2012</p> <p>(n) Challenge to violations.</p> <p>(1) An owner may challenge a violation issued pursuant to this section by providing:</p> <p>(i) proof from the Department of Finance that the building in question is not a "covered building" as defined in section 28-308.1 of the Administrative Code; or</p> <p>(ii) proof of early compliance with the filing requirements pursuant to section 28-308.7 of the Administrative Code; or</p> <p>(iii) proof that the building is less than ten years old at the start of its first assigned calendar year; or</p> <p>(iv) proof that the base building systems underwent substantial rehabilitation within the preceding ten years; or</p> <p>(v) proof that the owner was granted an extension of time to file the report.</p> <p>(2) Such challenge must be made in writing on a form provided by the Department within thirty days from the postmark date of the violation served by the Department.</p>	<p>Updated</p> <p>This addition re-clarifies the scope of work for LL87/09 and modifies existing rule of year 2012</p> <p>Revised the language to include:</p> <p>Proof that the building is a new building (NB) with a first temporary certificate of occupancy less than ten years old at the time the building was due to comply.</p> <p>Revised the language to include:</p> <p>Proof that the application to defer filing an EER was approved.</p> <p>Removed: base building systems underwent substantial rehabilitation within the preceding ten years.</p>	<p>(o) Challenge to violations.</p> <p>(1) An owner may challenge a violation issued pursuant to this section by providing:</p> <p>(i) proof from the Department of Finance that the building in question is not a "covered building" as defined in section 28-308.1 of the Administrative Code; or</p> <p>(ii) proof of early compliance with the filing requirements pursuant to section 28-308.7 of the Administrative Code; or</p> <p>(iii) proof that the building is a new building (NB) with a first temporary certificate of occupancy less than ten years old at the time the building was due to comply; or</p> <p>(iv) proof that the application to defer filing an EER was approved; or</p> <p>(v) proof that the owner was granted an extension of time to file the report.</p> <p>(2) Such challenge must be made in writing on a form provided by the department within thirty days from the postmark date of the violation served by the department.</p>

41	Administrative	Procedure to submit report	<p>LL87/09</p> <p>§28-308.4.2 Combined audit and retro-commissioning. Nothing in this article shall prevent an owner from performing the audit and the retro-commissioning in a combined process, provided that all the requirements of sections 28-308.2 and 28-308.3 are met.</p> <p>§28-308.5 Content of energy efficiency report. Except as otherwise provided in section 28-308.7, the energy efficiency report shall include, in a format prescribed by the department, (i) the energy audit report or documentation substantiating that an exception as set forth in section 28-308.2 applies to such building, and (ii) the retro-commissioning report or documentation substantiating that an exception as set forth in section 28-308.3 applies to such building.</p>	<p>New+ Updated</p> <p>This addition re-clarifies the scope of work for LL87/09 and modifies existing rule of year 2012</p> <p><u>This rule amendments shall be effect on 8/4/2019 after publication including section 3 of Energy auditor and retro-commissioning agent qualifications.</u></p> <p><u>Sections 1, 2, 4, 5, 6, 7, 8, and 9 shall be effect on January 1, 2020.</u></p> <p>Following gets uploaded through the online Energy Audit Template tool: EERC1 Final Energy Audit Report (PDF) Final Retro-Commissioning Report (PDF) Deep Energy Retrofit Plan Analysis (DERPA) tool Report Receipt from the online submission gets emailed to LL87@buildings.nyc.gov along with the retro-commissioning excel tool and EERC2 form to complete the EER submission.</p>	<p>§ 11. This rule shall take effect 30 days after its publication; provided, however, that the amendments made by sections one, two, and four through nine shall take effect on January 1, 2020.</p>
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